

## **RELIABILITY OF RATES**

All vital statistics rates, including morbidity rates, are subject to random variation. This variation is inversely related to the number of events (e.g., deaths) used to calculate the rate. The smaller the frequency of occurrence of an event, the greater the likelihood of random fluctuations within a specified time period. The more rare an event is, the relatively less stable its occurrence from observation. As a consequence, areas with only a few deaths, or a few cases of morbidity, can have highly unstable rates from year to year.

For appropriate statistical methodologies in comparing independent rates or percentages, please refer to the Bibliography for National Center for Health Statistics reports by Curtin & Klein on "Direct Standardization" and by Kleinman on "Infant Mortality."

## **SIGNIFICANCE OF DATA**

The data trends noted in Section IV were not tested for statistical significance. Caution should be used in interpreting whether changes between years reported are significant or are within the range of random variation.